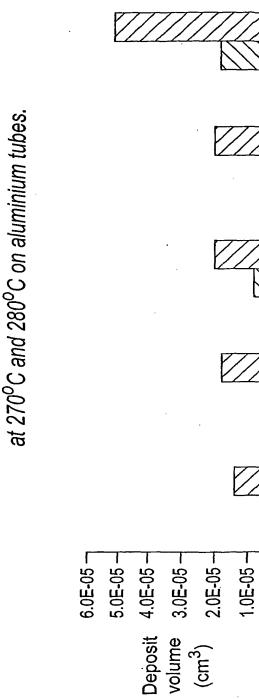
JFTOT screening of different compounds in Jet A-1 (J1) Fig. 1



Key: ☑ Temperature at 270°C. ☑ Temperature at 280°C.

Thianaphthene Benzofuran 2-methylindole

Indene

Base fuel

0.0E-00 -

Fig.2 Comparison between deposition tendencies for J1 jet fuel and dodecane containing 250 mg I - 1 2-methylindole as a function of JFTOT test temperature.

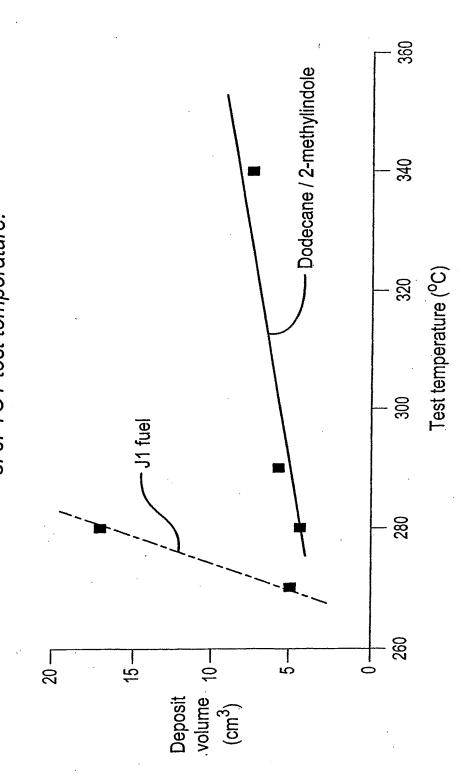


Fig. 3 JFTOT tube profiles showing the effect of different copper (II) concentrations in dodecane on deposit formation in the presence

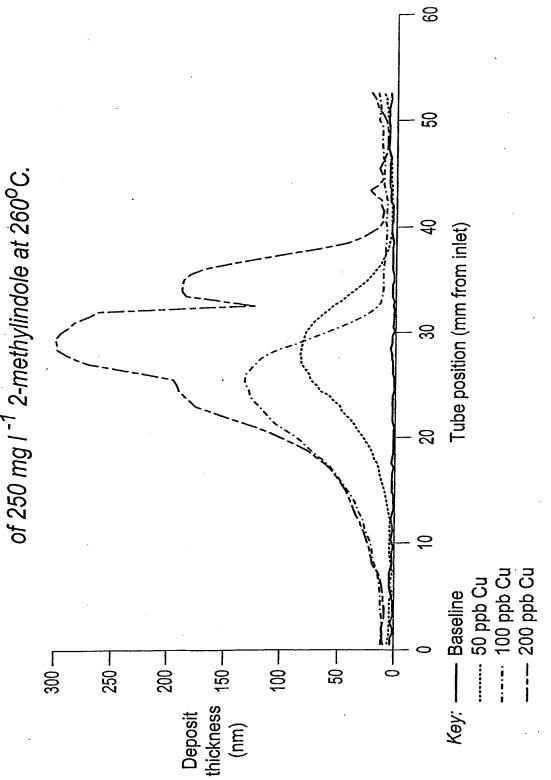
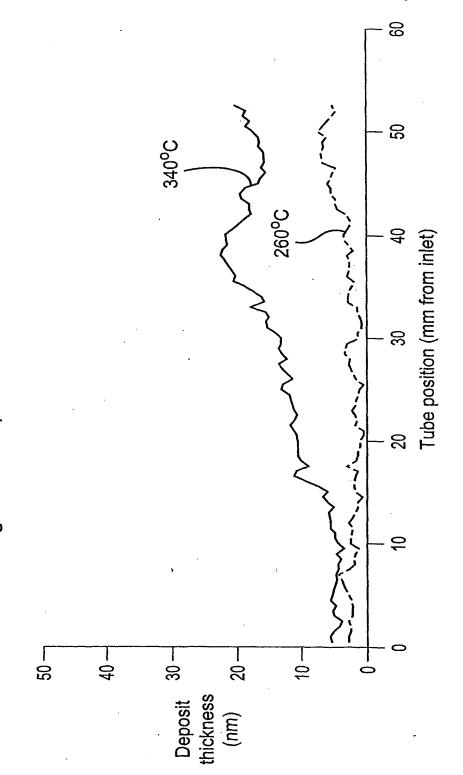
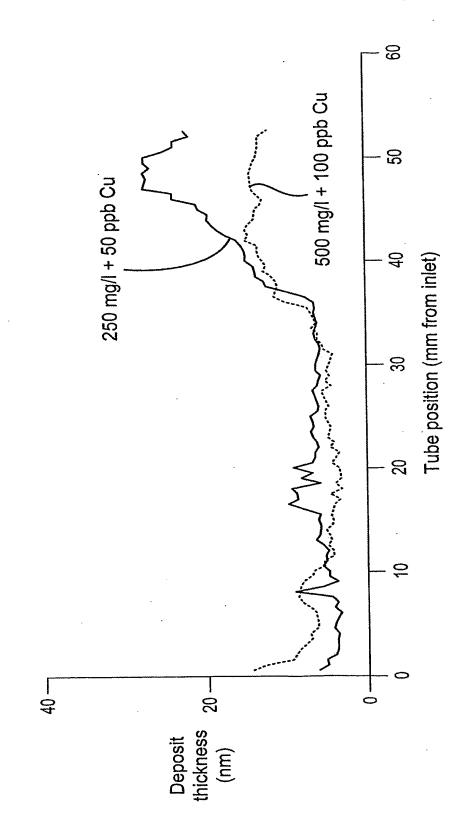


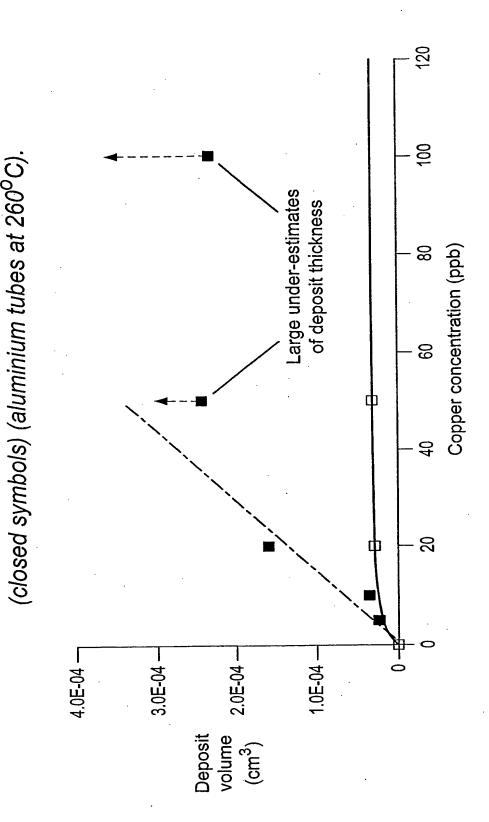
Fig.4 Aluminium JFTOT tube profiles showing the deposition occurring in dodecane containing 100 ppb Cu¹¹ and 250 mg I⁻¹ thianaphthene at 260°C and 340°C.



occurring in dodecane containing different concentrations Fig. 5 Aluminium JFTOT tube profiles showing the deposition (indicated) of collidine and copper (II) at $260^{\rm o}C$.



Dependence of JFTOT deposit volume on copper (${\mathbb I}$) concentration in the presence of pyrrole (open symbols) and 2,5-dimethlypyrrole Fig.6

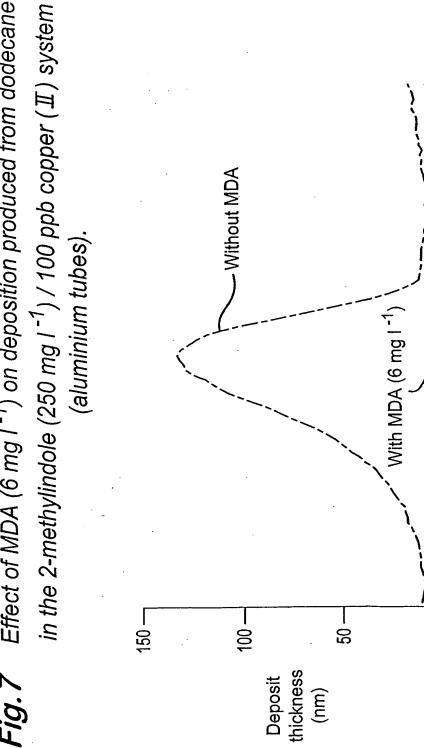


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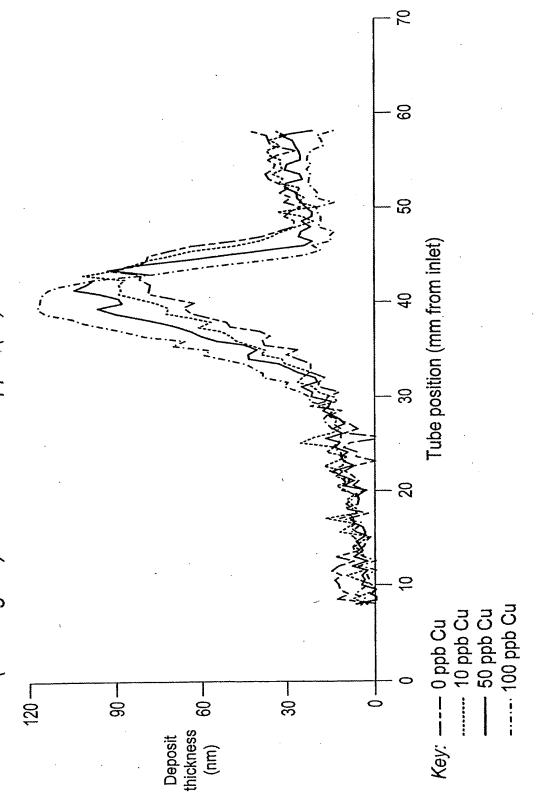
39

Effect of MDA (6 mg l⁻¹) on deposition produced from dodecane

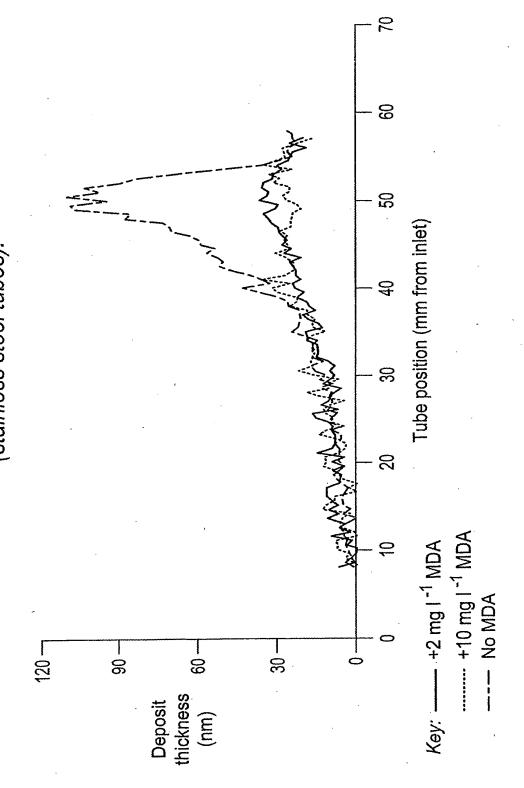


Tube position (mm from inlet)

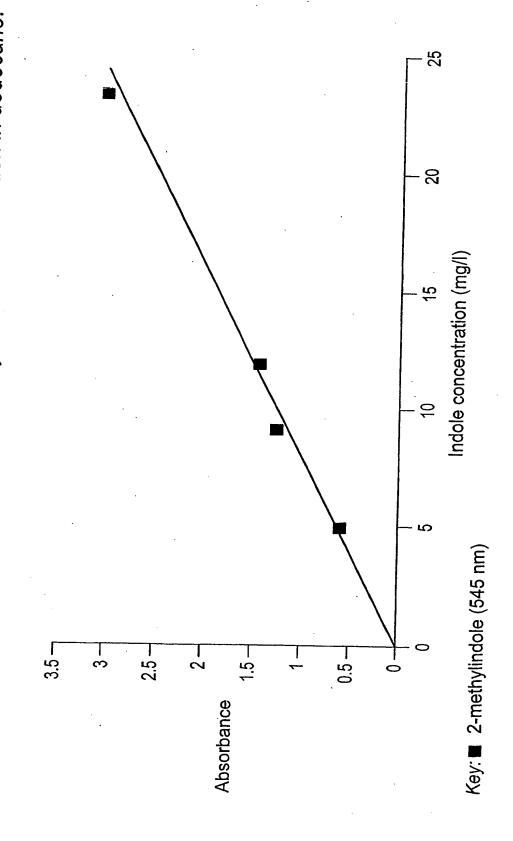
(250 mg l⁻¹) and different copper (II) concentrations at 260° C. deposition occurring in dodecane containing 2-methylindole Fig.8 Stainless steel JFTOT tube deposit profiles showing the



Effect of MDA on deposition produced from dodecane in the 2-methylindole (250 mg I^{-1}) / 100 ppb copper (II) system (stainless steel tubes). Fig.9



Calibration plot showing absorbance at 545 nm of formic acid / DMAB solutions as a function of 2-methylindole concentration in dodecane. Fig. 10



Uv-visible spectra for formic acid / DMAB solutions of extracts from the three indicated jet fuels. Fig. 11

